

Health Information Technology

An Assessment of Maryland Acute Care Hospitals

Commission Brief

March 15, 2018



The MARYLAND HEALTH CARE COMMISSION

Overview

- Annual assessment of health information technology (health IT) implementation among all acute care hospitals in the State with available national comparisons
- Highlights key trends, challenges, and strategic initiatives using health IT in support of quality care goals
- Findings used to inform policy discussions, recommendations, and best practices for advancing health IT statewide and improving privacy and security of electronic health information

Key Takeaways

- Hospital health IT strategies aimed at maximizing population health management
- Advancing use of data analytics (e.g., forecasting) necessary to improve clinical decision making and reduce cost
- Expansion of telehealth continues across care settings, although financial sustainability remains challenging
- Federal Meaningful Use (MU) requirements for patient portals have not fulfilled the intent of engaging patients
- Maryland hospitals lead the nation in cybersecurity risk mitigation techniques

Background

- HITECH – a unique federal policy driving change among hospitals through financial incentives for their adoption and MU of certified electronic health record (EHR) technology
- Maryland hospitals have received over \$300 million of nearly \$27 billion MU dollars allocated by the federal government
- Pre-HITECH (2008), 16% of Maryland hospitals had adopted a basic EHR compared to 9% of hospitals across the nation
- All hospitals in Maryland and 96% nationally have adopted a certified EHR; all have demonstrated MU

Key Findings

Health Information Technology

*An Assessment of Maryland
Acute Care Hospitals*



Strategic Areas of Focus

- Alternative payment models (APMs) placing more emphasis on population health and delivery system transformation
- Hospital telehealth programs augmenting population health activities (e.g., expanding access to care, creating efficiencies, preventing readmissions, monitoring at-risk patients, etc.)

TOP 3 STRATEGIC PRIORITIES



1. Population Health Management



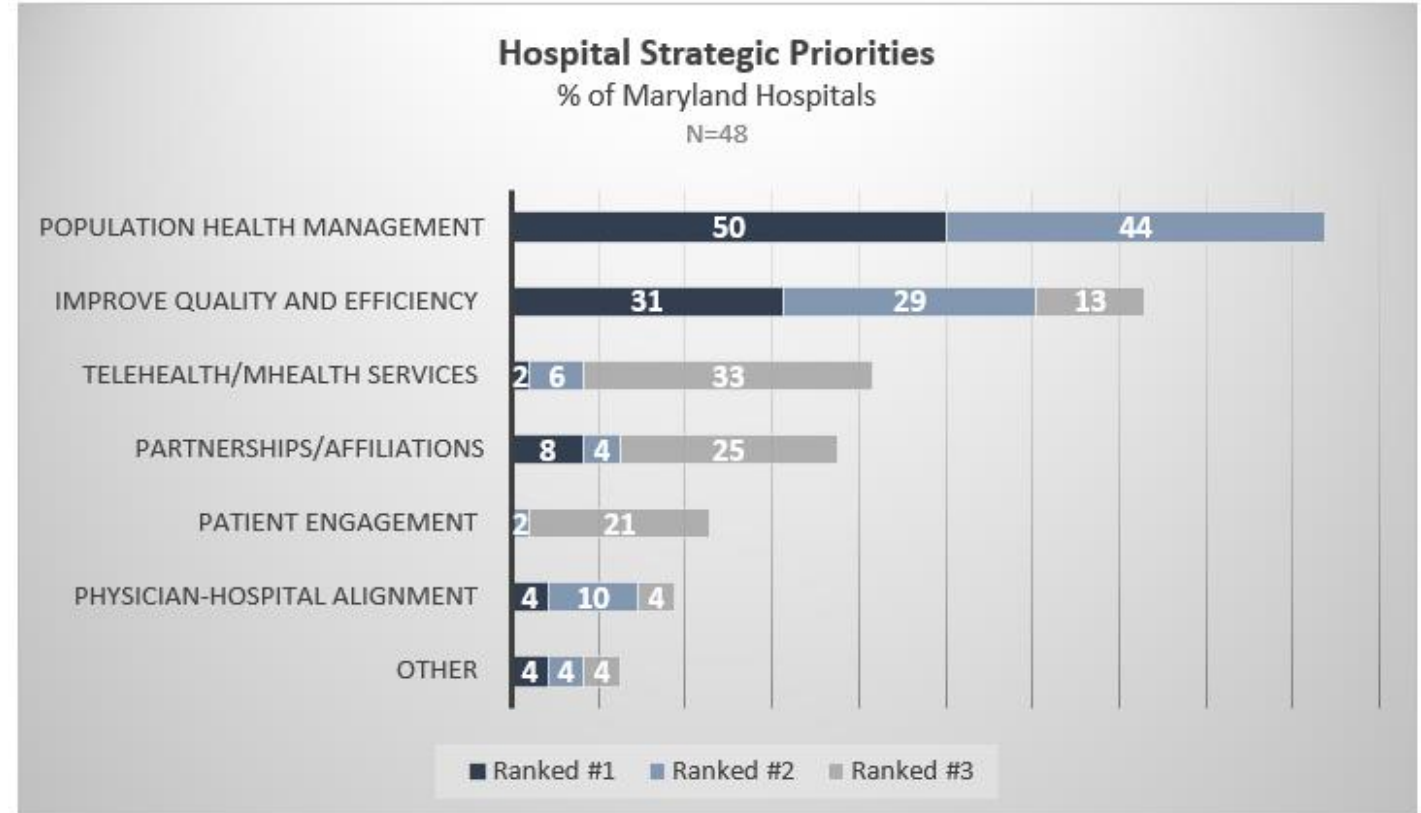
2. Improve Quality and Efficiency



3. Telehealth/
mHealth Services

Strategic Areas of Focus *(Continued...)*

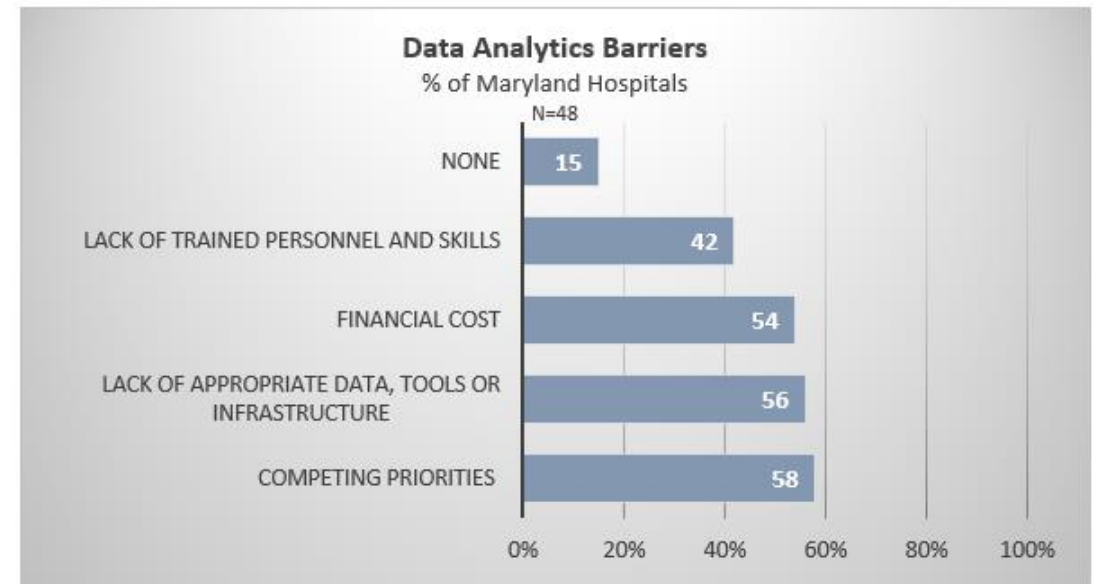
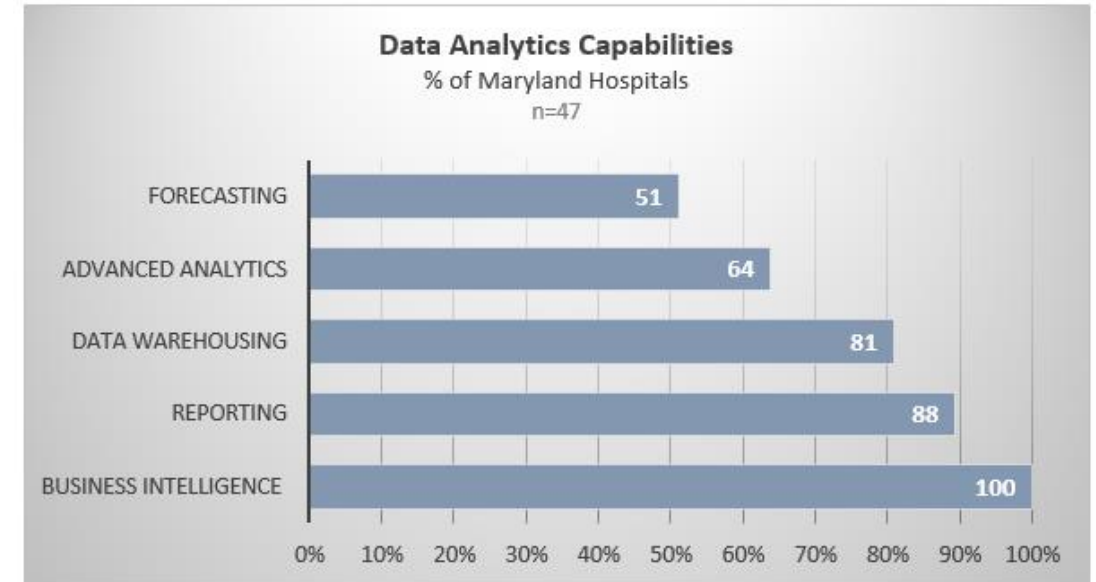
- APMs driving hospitals to strengthen alignment with physicians and enhance collaboration by establishing partnerships with other hospitals, ambulatory practices, etc.
- Determining how to effectively engage patients essential to achieving population health goals



Note: Other includes expanding ambulatory services, maximizing ambulatory EHR workflows and clinical pathways, and selecting an enterprise business/clinical analytics platform.

Data Analytics

- Most hospitals* have data analytics capabilities, ~20% increase from the prior year
- Data analytics (e.g., risk algorithms) are key to improving clinical decision support under APMs
- Hospitals report challenges in advancing analytics due to competing priorities, lack of data and tools, and costs



*Garrett Regional Medical Center reports it does not have capabilities for data analytics

Telehealth

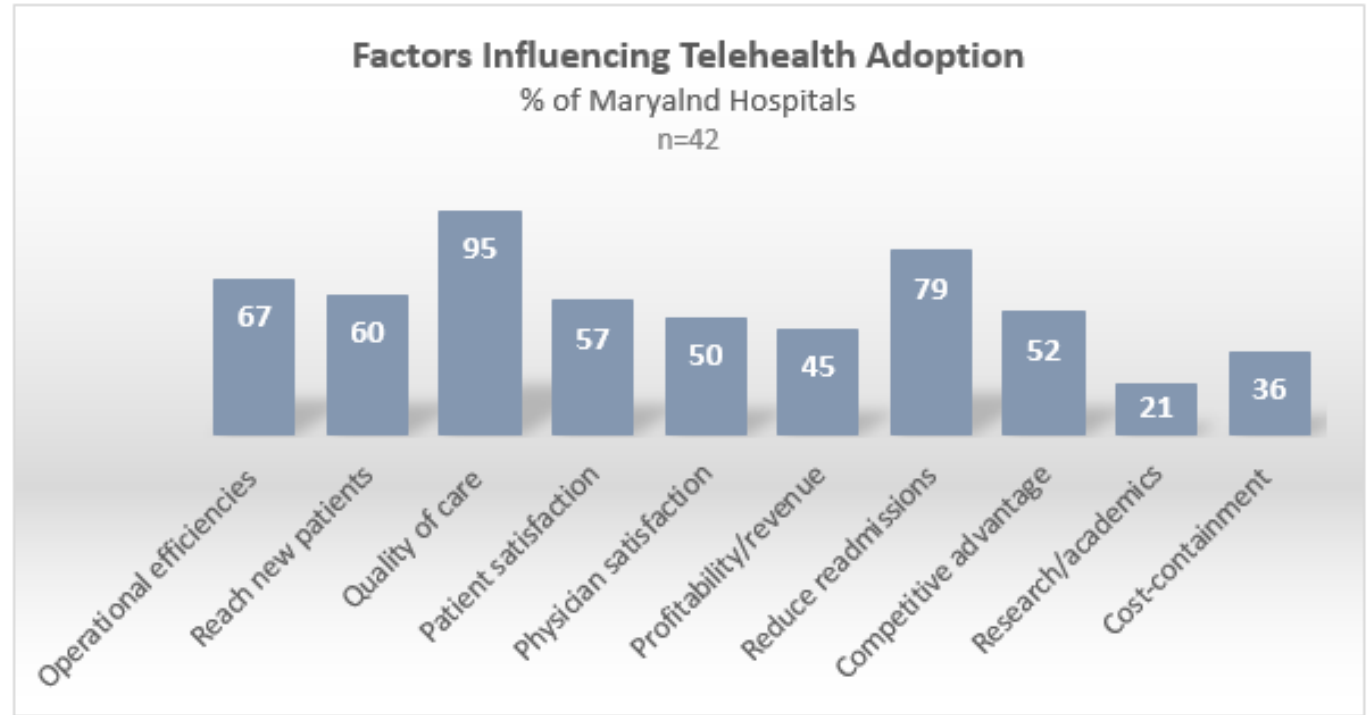
- Hospitals are generally at the forefront of telehealth
- Maryland hospitals exceed the nation by about 17% in reported telehealth capabilities*
- About 45% use remote monitoring devices to help support patients with chronic conditions



*The national adoption rate for telehealth among hospital is 71%
HIMSS Analytics, *Enabling Better Health through Information Technology*, 2017

Telehealth *(Continued...)*

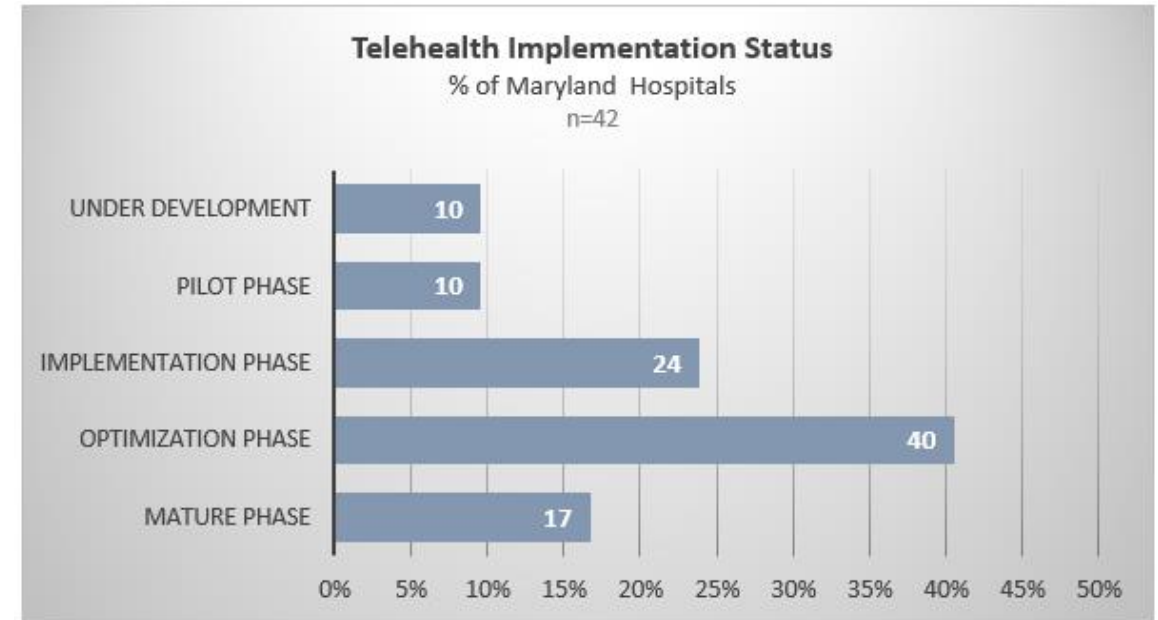
- Hospitals report improving quality and reducing readmissions as leading factors driving interest in telehealth
- Increasing efficiencies and expanding access to care ranks third and fourth, aligning with top organizational goals reported by hospitals nationally*



*Teledoc and Becker's Hospital Review, *The State of Consumer Telehealth*, 2016

Telehealth *(Continued...)*

- Almost half of telehealth adopters are in preliminary stages (under development, pilot, implementation)
- Majority are in an optimization phase; three quarters are academic hospitals
- Hospitals report barriers to expanding telehealth due to maintenance cost, lack of reimbursement, and limitations in technical infrastructure



Telehealth Barriers % of Maryland Hospitals N=48	
Acquisition, implementation, and maintenance costs	69
Lack of reimbursement	63
Limitations in technical infrastructure	48
Administrative and physician buy-in	44
Multi-state licensing requirements	44
Integration into existing clinical workflows	40
Sustainability	35
Credentialing	33

Patient Portal

- Implementation of patient portals widespread, yet few patients use the technology; modest uptake likely attributed to multiple portals requiring consumers to manage different passwords and applications

PATIENT PORTALS	Hospital Adoption	Patient Utilization
Maryland	100%	10%
Nation	90%	15%

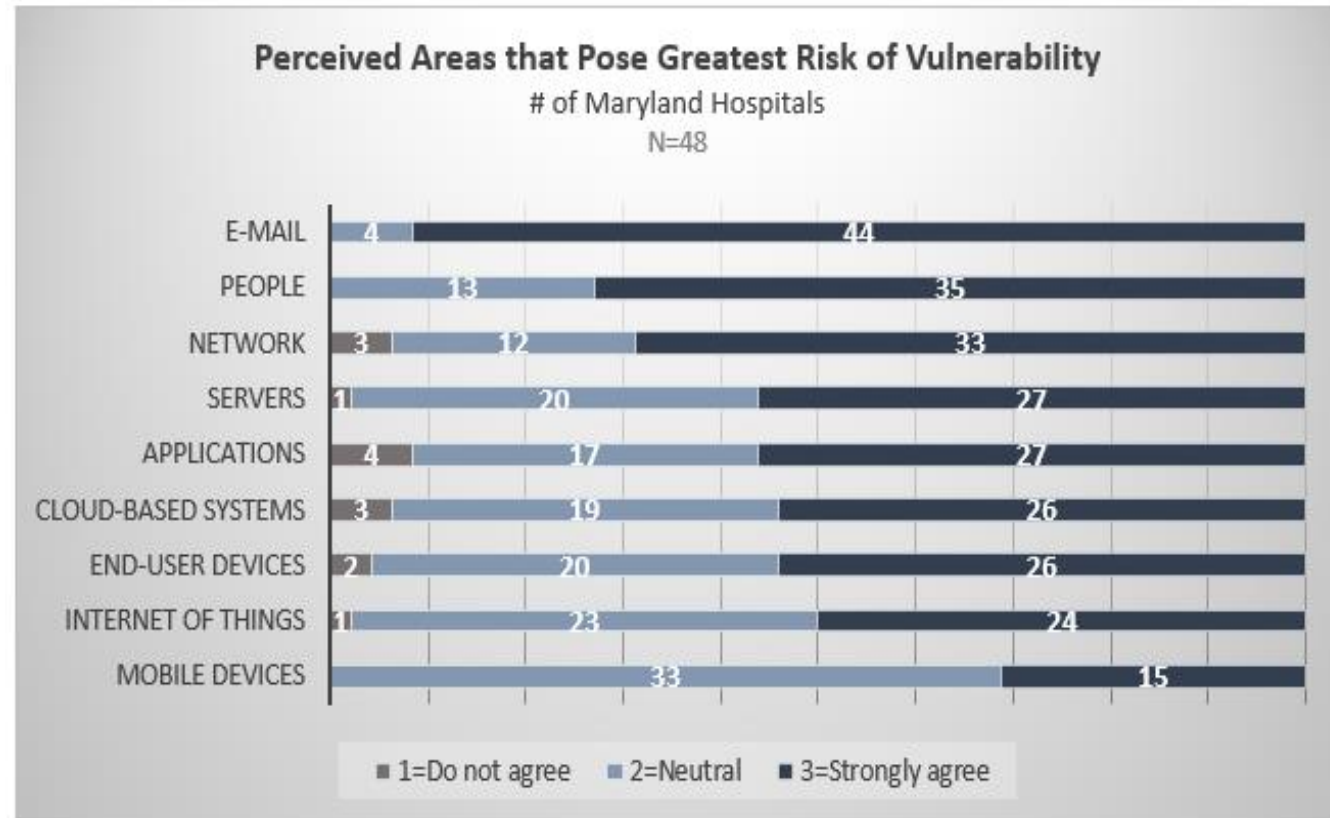
- MU Stage 3 (beginning 2018, optional 2017) aims to increase consumer access to their health information through centralization via one website (or technology vendor)
- Approximately 31% of hospitals make available to vendors electronic access to consented patient information for personal health records

Health Information Exchange

- Hospitals have become increasingly dependent on HIE to make advances in care delivery and inform population health activities
- Utility of CRISP is advancing from query-based exchange to care alerts and analytical services; some hospital-owned HIEs have ceased operations within the last two years to avoid duplication of available CRISP services
- Technical requirements pose steep challenges to making electronic health information available within the workflow
- HIE is slowly moving toward an EHR vendor driven exchange model where HIEs provide record locator services, provider messaging, and data analytics

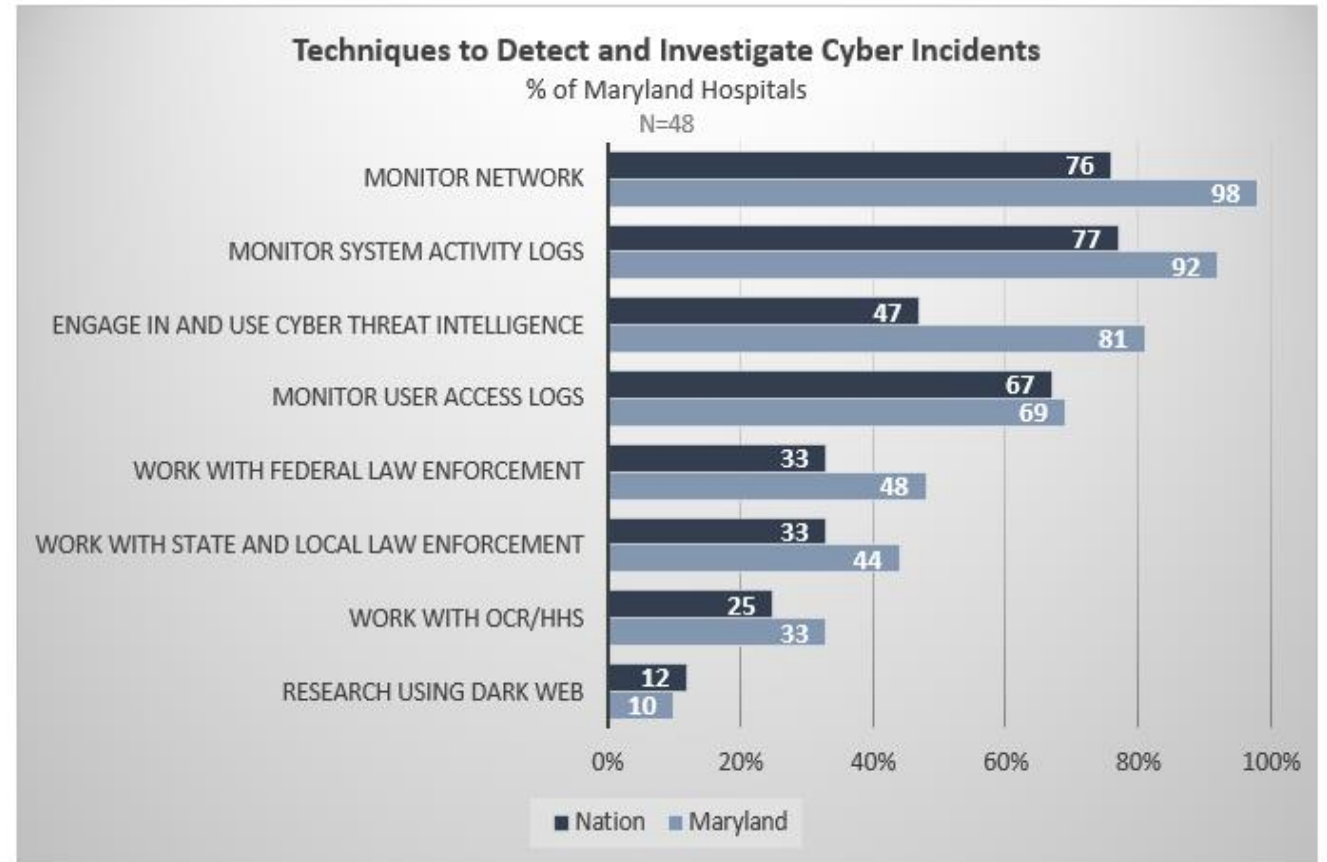
Cybersecurity

- Hospitals largely agree that e-mail is their greatest vulnerability, consistent with the nation*
- In 2017, half of breaches reported in Maryland involved hacking/IT, largely citing network server and e-mail as the breach location
- Perceived risk of mobile devices ranks lower than hospitals nationally*



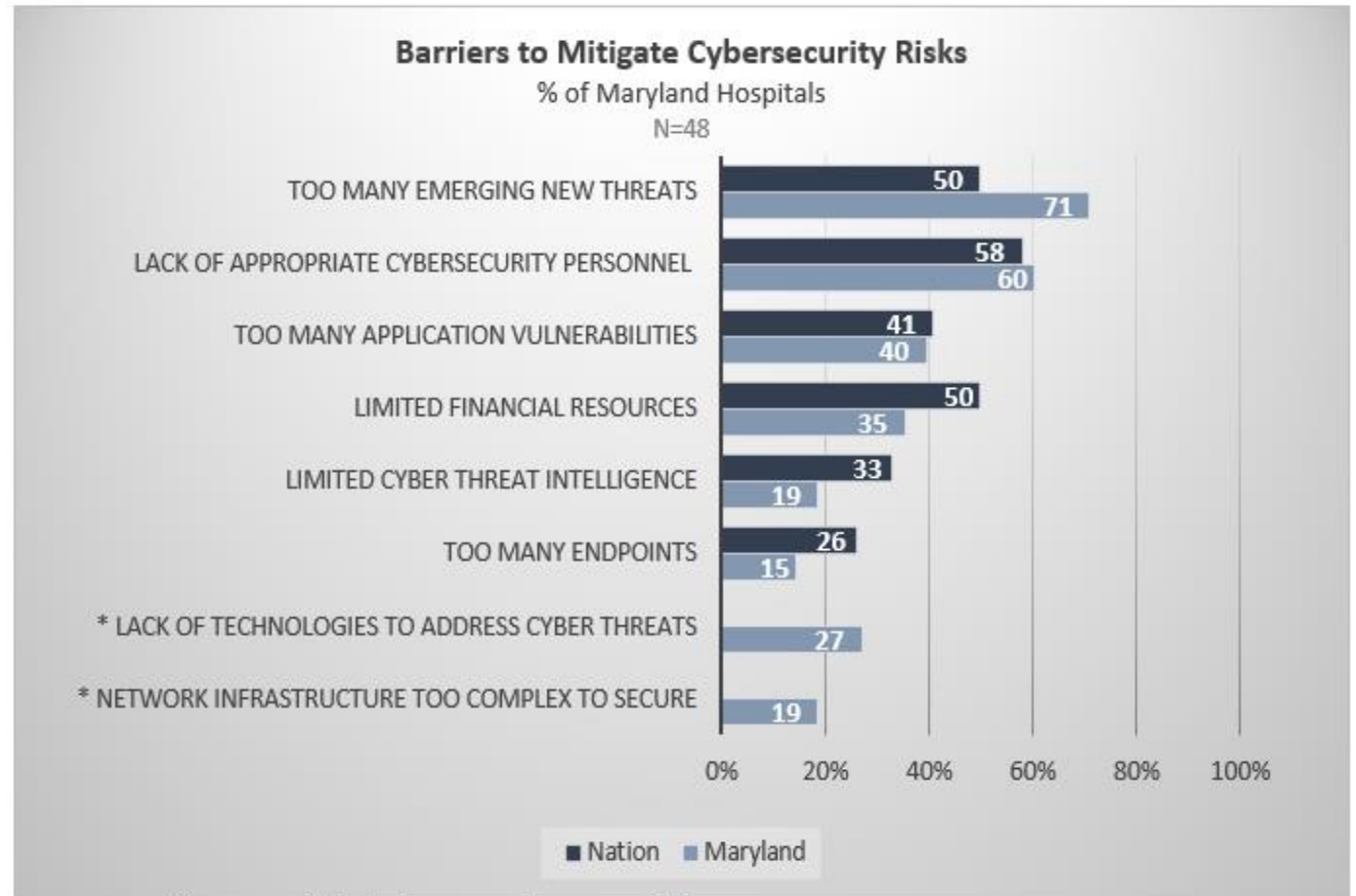
Cybersecurity *(Continued...)*

- Maryland hospitals lead the nation in deploying techniques to detect and investigate cyber incidents; monitoring networks and system activity logs are most common
- Hospitals locally leverage cyber threat intelligence almost twofold as compared to hospitals nationally*



Cybersecurity *(Continued...)*

- Proliferation of emerging threats ranks foremost in Maryland and second in the nation* as a leading challenge in mitigating risk
- Medical devices linked to legacy systems exacerbates security vulnerabilities for hospitals



*HIMSS, Cybersecurity Survey, 2016

Looking Ahead

- Advancing use of data analytics to benefit from cost containment and support care transformation
- Devoting more resources to secure IT systems, medical devices, and patient data to avoid breaches
- Expansion of telehealth services to engage patients and manage vulnerable populations more closely with focus on preventing admissions and readmissions
- Enhancing consumer engagement strategies to align with national priorities that aim to give patients greater access to and control of their data



Questions?

Appendix

Appendix 1

